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MICHIGAN WORKPLACE FATALITIES, 2004

Fatal work injuries totaled 126 in 2004 for Michigan, a decline of 17 percent from 2003, according to the U.S. Department of Labor's Bureau of Labor Statistics. Regional Commissioner Jay A. Mousa noted that this year's fatality count was the lowest in Michigan since the Bureau began tracking workplace fatalities in 1992. Most workplace fatalities in the State in 2004 were the result of homicides (22), highway incidents (18), nonhighway transportation incidents, such as those that might occur on a farm or industrial premises, (12), falls to a lower level (12), and being struck by an object (10). Taken together, these five events¹ accounted for almost 60 percent of the workplace fatalities in Michigan.

Homicides accounted for more workplace fatalities than any other event in Michigan. The number of on-the-job deaths due to homicide increased by eight from its 2003 level of 14; however, the 22 that occurred in 2004 equaled the number reported in 2002. During the 13 years that the fatality census has been conducted, the number of workplace homicides in Michigan has ranged from 13 to 39. (See table A.) In 2004, homicides accounted for 17 percent of the total number of work-related deaths in Michigan as compared to about 10 percent of the U.S. total.

The number of job related fatalities caused by highway incidents declined by 9 in 2004. The 18 workplace fatalities due to highway incidents were the lowest recorded for this event since the series began in 1992. Work-related deaths due to highway incidents accounted for 14 percent of the State's and 24 percent of the nation's occupational fatalities.

Fatalities in Michigan resulting from nonhighway transportation incidents (excluding rail, air, and water) declined by 7 from their 2003 level. Work-related deaths due to nonhighway incidents in 2004 accounted for 10 percent of the work-

¹ Fatal events are categorized into several major groupings including transportation incidents, assaults and violent acts, and falls. These major groups are further broken down into more detailed groups. For example, transportation incidents includes highway incidents and aircraft incidents; assaults and violent acts includes homicides and suicides; and falls includes falls to a lower level (as from a roof or ladder) and falls on the same level (as from grease on a floor or ice on a sidewalk).

related deaths in the State; nationwide, this event accounted for 6 percent of the total.

The 12 workplace deaths resulting from falls to a lower level in 2004 were little changed from the number reported in 2003. Deaths involving falls to a lower level accounted for 10 percent of fatal work injuries in Michigan and 13 percent nationally.

Ten workers in Michigan were fatally injured after being struck by an object in 2004, down nine over the year. The number of fatal work injuries due to this event is at its lowest level since 1992 when nine such incidents occurred. Work-related deaths due to this type of injury accounted for 8 percent of the State's and 10 percent of the nation's occupational fatalities in 2004.

Other work-related fatalities in Michigan included pedestrian incidents (9), being caught in or compressed by equipment or objects (8), and electrocution (7) in 2004. (See table 1.)

Table A. Fatal occupational injuries in Michigan by selected event groups, 1992-2004

Year	Total fatalities	Homicides		Highway incidents		Nonhighway transportation incidents		Falls to lower level		Struck by object	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1992	143	26	18	20	14	8	6	14	10	9	6
1993	160	25	16	33	21	9	6	8	5	18	11
1994	180	39	22	34	19	4	2	10	6	24	13
1995	149	23	15	39	26	8	5	12	8	16	11
1996	155	39	25	39	25	4	3	20	13	14	9
1997	174	26	15	21	12	7	4	21	12	13	7
1998	179	22	12	30	17	6	3	16	9	14	8
1999	182	20	11	37	20	11	6	22	12	11	6
2000	156	13	8	24	15	9	6	17	11	25	16
2001	175	24	14	28	16	17	10	21	12	15	9
2002	152	22	14	26	17	8	5	18	12	17	11
2003	152	14	9	27	18	19	13	13	9	19	13
2004	126	22	17	18	14	12	10	12	10	10	8

Nationwide, a total of 5,703 fatal work injuries were reported in 2004, an increase of 2 percent from the revised total of 5,575 fatalities reported for 2003. Despite the increase, the total for 2004 was the third lowest annual total recorded by the fatality census, which has been conducted yearly since 1992. (See table B.) Fatal highway incidents were up slightly in 2004 after declining the two previous years. The 1,374 deaths from highway incidents in 2004 represented about one out of every four fatal work injuries and continued to be the leading cause of on-the-job fatalities. Fatalities resulting from falls to a lower level and being struck by an object represented the highest annual totals ever reported by the fatality census for these events. The number of work-related deaths from falls to a lower level

increased from 604 in 2003 to 732 in 2004, while workplace fatalities resulting from being struck by an object were up from 531 in 2003 to 596 in 2004.

The number of workplace homicides recorded in the U.S. in 2004 dropped sharply from the number reported in 2003. The 551 workplace homicides in 2004 represented a 13-percent decline over the year and was the lowest annual total yet recorded by the fatality census. Overall, workplace homicides were down 49 percent from the high of 1,080 recorded in 1994 (excluding the 2,886 work-related homicides resulting from the terrorist attacks of September 11, 2001).

Table B. Fatal occupational injuries in the United States by selected event groups, 1992-2004

Year	Total fatalities	Highway incidents		Falls to lower level		Struck by object		Homicides	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
1992	6,217	1,158	19	507	8	557	9	1,044	17
1993	6,331	1,242	20	534	8	565	9	1,074	17
1994	6,632	1,343	20	580	9	591	9	1,080	16
1995	6,275	1,346	21	578	9	547	9	1,036	17
1996	6,202	1,346	22	610	10	582	9	927	15
1997	6,238	1,393	22	653	10	579	9	860	14
1998	6,055	1,442	24	625	10	520	9	714	12
1999	6,054	1,496	25	634	10	585	10	651	11
2000	5,920	1,365	23	659	11	571	10	677	11
2001 ¹	5,915	1,409	24	700	12	553	9	643	11
2002	5,534	1,373	25	638	12	505	9	609	11
2003 ²	5,575	1,353	24	604	11	531	10	632	11
2004	5,703	1,374	24	732	13	596	10	551	10

¹ Totals for 2001 exclude fatalities due to the events of September 11, 2001 which claimed the lives of 2,886 persons in work status.

² The BLS news release issued September 22, 2004, reported a total of 5,559 fatal work injuries for calendar year 2003. Since then, an additional 16 job-related fatalities were identified, bringing the total job-related fatality count for 2003 to 5,575.

Key characteristics of workplace fatalities in Michigan in 2004:

- Men accounted for 92 percent of the work-related fatalities in the State with 116 deaths. Transportation incidents, which include highway, nonhighway, pedestrian, air, water, and rail, accounted for almost two-fifths of these deaths. Among women, 3 of the 10 deaths resulted from assaults and violent acts and 3 from exposure to harmful substances or environments. (See table 2.)
- In Michigan, 76 percent of those who died from a workplace injury were white non-Hispanics (96 fatal work injuries), while black non-Hispanics (16) made up 13 percent.
- Workers 25-54 years old—the prime working age group—accounted for 69 percent of the State's work-related fatalities in 2004; 21 percent were 55 years or older.
- Seventy-nine percent of workers killed on-the-job in Michigan worked for wages and salaries, the rest were self-employed.
- The construction sector had the largest number of fatalities (28) followed by agriculture, forestry, fishing and hunting (17) and manufacturing (17). Falls were the primary cause of the fatalities in the construction sector and transportation incidents were responsible for most of the fatal work injuries in the agriculture, forestry, fishing and hunting sector. Transportation incidents and contact with objects and equipment were the primary causes of work-related deaths in the manufacturing sector. There were 11 fatal injuries in the transportation and warehousing sector. (See table 3.)
- From an occupational perspective, drivers of heavy trucks and tractor-trailers suffered the most work-related deaths (9), followed by managers of farms and ranches (7). Two occupations recorded 6 work-related deaths—police and sheriff's patrol officers and crop, nursery, and greenhouse farmworkers and laborers. (See table 4.)

Additional data available

Additional Census of Fatal Occupational Injuries data are available from the BLS Web site at www.bls.gov/iif. Data tables for 2004 are available for all 50 states, the District of Columbia, and selected metropolitan areas.

TECHNICAL NOTES

Background of the program

The Census of Fatal Occupational Injuries, part of the BLS occupational safety and health statistics program, provides a complete count of fatal work injuries available. The program uses diverse state and federal data sources to identify, verify, and profile fatal work injuries. Information about each workplace fatality (occupation and other worker characteristics, equipment being used, and circumstances of the event) is obtained by cross-referencing source documents, such as death certificates, workers' compensation records, and reports to federal and state agencies. This method assures counts are as complete and accurate as possible.

Definitions

For a fatality to be included in the census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job. These criteria are generally broader than those used by federal and state agencies administering specific laws and regulations. (Fatalities that occur during a person's commute to or from work are excluded from the census counts.)

Data presented in this release include deaths occurring in 2004 that resulted from traumatic occupational injuries. An injury is defined as any intentional or unintentional wound or damage to the body resulting from acute exposure to energy, such as heat, electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event, incident, or series of events within a single workday or shift. Included are open wounds, intracranial and internal injuries, heatstroke, hypothermia, asphyxiation, acute poisonings resulting from short-term exposures limited to the worker's shift, suicides and homicides, and work injuries listed as underlying or contributory causes of death.

Information on work-related fatal illnesses is not reported in the BLS census and is excluded from the attached tables because the latency period of many occupational illnesses and the difficulty of linking illnesses to work exposures make identification of a universe problematic.

Measurement techniques and limitations

Data for the Census of Fatal Occupational Injuries are compiled from various federal, state, and local administrative sources—including death certificates, workers' compensation reports and claims, reports to various regulatory agencies, medical examiner reports, and police reports—as well as news and other non-governmental reports. Diverse sources are used because studies have shown that no single source captures all job-related fatalities. Source documents are matched so that each fatality is counted only once. To ensure that a fatality occurred while the decedent was at work, information is verified from two or more independent source documents or from a source document and a follow-up questionnaire. Approximately 30 data elements are collected, coded, and tabulated, including information about the worker, the fatal incident, and the machinery or equipment involved.

Federal/state agency coverage

The Census of Fatal Occupational Injuries includes data for all fatal work injuries, whether the decedent was working in a job covered by the Occupational Safety and Health Administration (OSHA) or other federal or state agencies or is outside the scope of regulatory coverage. Thus, any comparison between the BLS fatality census counts and those released

by other agencies should take into account the different coverage requirements and definitions being used by each agency.

Several federal and state agencies have jurisdiction over workplace safety and health. OSHA and affiliated agencies in states with approved safety programs cover the largest portion of the nation's workers. However, injuries and illnesses occurring in certain industries or activities, such as coal, metal, and nonmetal mining and highway, water, rail, and air transportation, are excluded from OSHA coverage because they are covered by other federal agencies, such as the Mine Safety and Health Administration and various agencies within the Department of Transportation.

Fatalities occurring among several other groups of workers are generally not covered by any federal or state agencies. These groups include self-employed and unpaid family workers, which accounted for about 20 percent of the nation's fatalities; laborers on small farms, accounting for about 1 percent; and state and local government employees in states without OSHA-approved safety programs, which accounted for about 4 percent. (Approximately one-half of the states have approved OSHA safety programs, which cover state and local government employees).

Acknowledgments

BLS thanks the Michigan Department of Labor and Economic Growth for its efforts in collecting accurate, comprehensive, and useful data on fatal work injuries. BLS also appreciates the efforts of all federal, state, local, and private sector agencies that submitted source documents used to identify fatal work injuries. Among these agencies are the Occupational Safety and Health Administration; the National Transportation Safety Board; the U.S. Coast Guard; the Mine Safety and Health Administration; the Employment Standards Administration (Federal Employees' Compensation and Longshore and Harbor Workers' divisions); the Department of Energy; state vital statistics registrars, coroners, and medical examiners; state departments of health, labor and industries and workers' compensation agencies; state and local police departments; and state farm bureaus.

TABLE 1. Fatal occupational injuries by event or exposure and major private industry¹ sector, Michigan, 2004

Event or exposure ²	Total fatalities (number)	Goods producing				Service providing							
		Total goods producing	Natural resources and mining ³	Construction	Manufacturing	Total service providing	Trade, transportation, and utilities	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services
Total.....	126	64	19	28	17	48	23	--	--	9	5	7	4
Contact with objects and equipment.....	24	15	4	5	6	9	6	--	--	--	--	--	--
Struck by object.....	10	8	--	--	5	--	--	--	--	--	--	--	--
Struck by falling object.....	4	4	--	--	3	--	--	--	--	--	--	--	--
Struck by swinging or slipping object.....	3	--	--	--	--	--	--	--	--	--	--	--	--
Struck by swinging or slipping object, n.e.c.....	3	--	--	--	--	--	--	--	--	--	--	--	--
Caught in or compressed by equipment or objects.....	8	4	--	--	--	4	3	--	--	--	--	--	--
Caught in running equipment or machinery.....	6	4	--	--	--	--	--	--	--	--	--	--	--
Caught in or crushed in collapsing materials.....	5	3	--	--	--	--	--	--	--	--	--	--	--
Caught in or crushed in collapsing materials, n.e.c.....	3	--	--	--	--	--	--	--	--	--	--	--	--
Falls.....	14	14	--	12	--	--	--	--	--	--	--	--	--
Fall to lower level.....	12	12	--	12	--	--	--	--	--	--	--	--	--
Fall from scaffold, staging.....	4	4	--	4	--	--	--	--	--	--	--	--	--
Fall to lower level, n.e.c.....	3	3	--	3	--	--	--	--	--	--	--	--	--
Exposure to harmful substances or environments.....	13	8	3	5	--	4	3	--	--	--	--	--	--
Contact with electric current.....	7	5	--	4	--	--	--	--	--	--	--	--	--
Contact with overhead power lines.....	4	--	--	--	--	--	--	--	--	--	--	--	--
Exposure to caustic, noxious, or allergenic substances.....	4	--	--	--	--	--	--	--	--	--	--	--	--
Transportation incidents.....	45	22	9	6	7	15	7	--	--	7	--	--	--
Highway incidents.....	18	7	--	--	3	6	4	--	--	--	--	--	--
Collision between vehicles, mobile equipment.....	10	4	--	--	--	4	4	--	--	--	--	--	--
Moving in same direction.....	6	--	--	--	--	--	--	--	--	--	--	--	--
Vehicle struck stationary object, equipment on side of road.....	5	--	--	--	--	--	--	--	--	--	--	--	--
Noncollision incident.....	3	--	--	--	--	--	--	--	--	--	--	--	--
Nonhighway incident, except rail, air, water.....	12	8	4	--	--	--	--	--	--	--	--	--	--
Noncollision incident.....	11	8	4	--	--	--	--	--	--	--	--	--	--
Overturned.....	5	3	--	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table.

TABLE 1. Fatal occupational injuries by event or exposure and major private industry¹ sector, Michigan, 2004 - continued

Event or exposure ²	Total fatalities (number)	Goods producing				Service providing							
		Total goods producing	Natural resources and mining ³	Construction	Manufacturing	Total service providing	Trade, transportation, and utilities	Information	Financial activities	Professional and business services	Education and health services	Leisure and hospitality	Other services
Pedestrian, nonpassenger struck by vehicle, mobile equipment.....	9	6	3	--	--	--	--	--	--	--	--	--	--
Pedestrian struck by vehicle, mobile equipment in parking lot or non-roadway area.....	7	4	3	--	--	--	--	--	--	--	--	--	--
Fires and explosions.....	3	--	--	--	--	--	--	--	--	--	--	--	--
Fire--unintended or uncontrolled.....	3	--	--	--	--	--	--	--	--	--	--	--	--
Assaults and violent acts.....	27	5	3	--	--	18	6	--	--	--	3	4	4
Assaults and violent acts by person(s).....	22	--	--	--	--	17	6	--	--	--	3	3	4
Shooting.....	19	--	--	--	--	15	5	--	--	--	--	3	4
Self-inflicted injury.....	4	3	--	--	--	--	--	--	--	--	--	--	--
Suicide, attempted suicide.....	4	3	--	--	--	--	--	--	--	--	--	--	--

¹ Classified according to the North American Industry Classification System, 2002.

² Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

³ Includes fatalities at all establishments categorized as Mining (Sector 21) in the North American Industry Classification System, 2002, including establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in Oil and Gas Extraction.

NOTE: Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. n.e.c. means "not elsewhere classified." Data for 2004 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State and Federal agencies, Census of Fatal Occupational Injuries

Table 2. Fatal occupational injuries by worker characteristics and event or exposure, Michigan, 2004

Worker characteristics	Total fatalities (number)	Event or exposure ¹					
		Transportation incidents ²	Assaults and violent acts ³	Contact with objects and equipment	Falls	Exposure to harmful sub- stances or environ- ments	Fires and explosions
Total.....	126	45	27	24	14	13	3
Employee Status							
Wage and Salary Workers ⁴	99	40	18	20	11	9	--
Self-employed ⁵	27	5	9	4	--	4	--
Sex							
Men.....	116	45	24	22	14	10	--
Women.....	10	--	3	--	--	3	--
Age							
Under 16 years.....	--	--	--	--	--	--	--
16 to 17 years.....	--	--	--	--	--	--	--
18 to 19 years.....	--	--	--	--	--	--	--
20 to 24 years.....	8	3	--	3	--	--	--
25 to 34 years.....	20	4	6	4	3	--	--
35 to 44 years.....	33	13	9	4	4	3	--
45 to 54 years.....	34	13	5	6	--	6	--
55 to 64 years.....	12	7	--	--	--	--	--
65 years and over.....	14	3	4	5	--	--	--
Race or Ethnic Origin⁶							
White, non-Hispanic.....	96	37	14	20	11	12	--
Black, non-Hispanic.....	16	3	9	--	--	--	--
Hispanic or Latino.....	6	3	--	--	--	--	--
American Indian or Alaska Native.....	--	--	--	--	--	--	--
Asian.....	4	--	3	--	--	--	--
Native Hawaiian or Pacific Islander.....	--	--	--	--	--	--	--

¹ Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

² Includes highway, nonhighway, air, water, rail fatalities, and fatalities resulting from being struck by a vehicle.

³ Includes violence by persons, self-inflicted injury, and attacks by animals.

⁴ May include volunteers and workers receiving other types of compensation.

⁵ Includes self-employed workers, owners of unincorporated businesses and farms, paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships.

⁶ Persons identified as Hispanic or Latino may be of any race. The race

categories shown exclude data for Hispanics and Latinos.

NOTE: Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. Data for 2004 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State and Federal agencies, Census of Fatal Occupational Injuries

TABLE 3. Fatal occupational injuries by industry and event or exposure, Michigan, 2004

Industry ¹	NAICS code ¹	Total fatalities (number)	Event or exposure ²					
			Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful sub- stances or environments	Fires and explosions
Total.....		126	45	27	24	14	13	3
Private Industry.....		112	37	23	24	14	12	--
Goods Producing.....		64	22	5	15	14	8	--
Natural Resources and Mining⁵.....		19	9	3	4	--	3	--
Agriculture, Forestry, Fishing and Hunting.....	11	17	9	3	3	--	--	--
Crop Production.....	111	12	7	--	--	--	--	--
Oilseed and Grain Farming.....	1111	5	3	--	--	--	--	--
Animal Production.....	112	5	--	--	--	--	--	--
Cattle Ranching and Farming.....	1121	4	--	--	--	--	--	--
Dairy Cattle and Milk Production.....	11212	3	--	--	--	--	--	--
Construction.....		28	6	--	5	12	5	--
Construction.....	23	28	6	--	5	12	5	--
Construction of buildings.....	236	4	--	--	--	--	--	--
Heavy and Civil Engineering Construction.....	237	7	--	--	--	4	--	--
Utility System Construction.....	2371	4	--	--	--	--	--	--
Highway, Street, and Bridge Construction.....	2373	3	--	--	--	--	--	--
Highway, Street, and Bridge Construction.....	23731	3	--	--	--	--	--	--
Specialty Trade Contractors.....	238	16	--	--	--	8	3	--
Foundation, Structure, and Building Exterior Contractors.....	2381	11	--	--	--	7	--	--
Roofing Contractors.....	23816	7	--	--	--	5	--	--
Building Equipment Contractors.....	2382	4	--	--	--	--	--	--
Electrical Contractors.....	23821	4	--	--	--	--	--	--
Manufacturing.....		17	7	--	6	--	--	--
Manufacturing.....	31-33	17	7	--	6	--	--	--
Transportation Equipment Manufacturing.....	336	7	3	--	--	--	--	--
Motor Vehicle Parts Manufacturing.....	3363	4	--	--	--	--	--	--
Service providing.....		48	15	18	9	--	4	--
Trade, Transportation, and Utilities.....		23	7	6	6	--	3	--

See footnotes at end of table.

TABLE 3. Fatal occupational injuries by industry and event or exposure, Michigan, 2004 - continued

Industry ¹	NAICS code ¹	Total fatalities (number)	Event or exposure ²					
			Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful sub- stances or environments	Fires and explosions
Wholesale Trade	42	6	--	--	--	--	--	--
Merchant Wholesalers, Durable Goods.....	423	3	--	--	--	--	--	--
Merchant Wholesalers, Nondurable Goods.....	424	3	--	--	--	--	--	--
Retail Trade	44-45	6	--	4	--	--	--	--
Transportation and Warehousing	48-49	11	3	--	4	--	--	--
Truck Transportation.....	484	4	--	--	--	--	--	--
General Freight Trucking.....	4841	3	--	--	--	--	--	--
Support Activities for Transportation.....	488	3	--	--	--	--	--	--
Professional and Business Services		9	7	--	--	--	--	--
Professional, Scientific, and Technical Services	54	5	5	--	--	--	--	--
Professional, Scientific, and Technical Services.....	541	5	5	--	--	--	--	--
Administrative and Support and Waste Management and Remediation Services	56	4	--	--	--	--	--	--
Administrative and Support Services.....	561	4	--	--	--	--	--	--
Services to Buildings and Dwellings.....	5617	3	--	--	--	--	--	--
Landscaping Services.....	56173	3	--	--	--	--	--	--
Education and Health Services		5	--	3	--	--	--	--
Health Care and Social Assistance	62	4	--	--	--	--	--	--
Leisure and Hospitality		7	--	4	--	--	--	--
Arts, Entertainment, and Recreation	71	3	--	--	--	--	--	--
Accommodation and Food Services	72	4	--	3	--	--	--	--
Food Services and Drinking Places.....	722	3	--	3	--	--	--	--
Other Services		4	--	4	--	--	--	--
Other Services, except Public Administration	81	4	--	4	--	--	--	--

See footnotes at end of table.

TABLE 3. Fatal occupational injuries by industry and event or exposure, Michigan, 2004 - continued

Industry ¹	NAICS code ¹	Total fatalities (number)	Event or exposure ²					
			Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful sub- stances or environments	Fires and explosions
Government⁶.....		14	8	4	--	--	--	--
Local Government.....		11	5	4	--	--	--	--
Service providing.....		10	4	4	--	--	--	--
Public Administration.....		6	3	--	--	--	--	--
Public Administration.....	92	6	3	--	--	--	--	--
Justice, Public Order, and Safety Activities.....	922	6	3	--	--	--	--	--
Justice, Public Order, and Safety Activities.....	9221	6	3	--	--	--	--	--
Police Protection.....	92212	6	3	--	--	--	--	--

¹ Classified according to the North American Industry Classification System, 2002.

² Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

³ Includes highway, nonhighway, air, water, rail fatalities, and fatalities resulting from being struck by a vehicle.

⁴ Includes violence by persons, self-inflicted injury, and attacks by animals.

⁵ Includes fatalities at all establishments categorized as Mining (Sector 21) in the North American Industry Classification System, 2002, including establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in Oil and Gas Extraction.

⁶ Includes fatalities to workers employed by governmental organizations regardless of industry.

NOTE: Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. Data for 2004 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State and Federal agencies, Census of Fatal Occupational Injuries

TABLE 4. Fatal occupational injuries by occupation and event or exposure, Michigan, 2004

Occupation ¹	Total fatalities (number)	Event or exposure ²					
		Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful sub- stances or environments	Fires and explosions
Total.....	126	45	27	24	14	13	3
Management occupations.....	11	4	--	3	--	--	--
Other management occupations.....	11	4	--	3	--	--	--
Agricultural managers.....	8	3	--	--	--	--	--
Farmers and ranchers.....	7	3	--	--	--	--	--
Architecture and engineering occupations.....	5	5	--	--	--	--	--
Engineers.....	5	5	--	--	--	--	--
Protective service occupations.....	12	4	7	--	--	--	--
Law enforcement workers.....	7	4	--	--	--	--	--
Police officers.....	6	3	--	--	--	--	--
Police and sheriff's patrol officers.....	6	3	--	--	--	--	--
Other protective service workers.....	5	--	4	--	--	--	--
Security guards and gaming surveillance officers.....	4	--	4	--	--	--	--
Security guards.....	3	--	3	--	--	--	--
Building and grounds cleaning and maintenance occupations.....	4	--	--	--	--	--	--
Grounds maintenance workers.....	3	--	--	--	--	--	--
Grounds maintenance workers.....	3	--	--	--	--	--	--
Sales and related occupations.....	7	--	5	--	--	--	--
Supervisors, sales workers.....	5	--	4	--	--	--	--
First-line supervisors/managers, sales workers.....	5	--	4	--	--	--	--
First-line supervisors/managers of retail sales workers.....	3	--	3	--	--	--	--
Farming, fishing, and forestry occupations.....	9	6	--	--	--	--	--
Agricultural workers.....	9	6	--	--	--	--	--
Miscellaneous agricultural workers.....	9	6	--	--	--	--	--
Farmworkers and laborers, crop, nursery, and greenhouse.....	6	4	--	--	--	--	--
Farmworkers, farm and ranch animals.....	3	--	--	--	--	--	--
Construction and extraction occupations.....	23	--	--	4	11	5	--
Supervisors, construction and extraction workers.....	4	--	--	--	--	--	--
First-line supervisors/managers of construction trades and extraction workers.....	4	--	--	--	--	--	--
First-line supervisors/managers of construction trades and extraction workers.....	4	--	--	--	--	--	--
Construction trades workers.....	19	--	--	--	9	5	--
Construction laborers.....	5	--	--	--	--	3	--
Construction laborers.....	5	--	--	--	--	3	--
Electricians.....	4	--	--	--	--	--	--
Electricians.....	4	--	--	--	--	--	--
Painters and paperhangers.....	3	--	--	--	--	--	--
Painters, construction and maintenance.....	3	--	--	--	--	--	--

See footnotes at end of table.

TABLE 4. Fatal occupational injuries by occupation and event or exposure, Michigan, 2004 - Continued

Occupation ¹	Total fatalities (number)	Event or exposure ²					
		Transportation incidents ³	Assaults and violent acts ⁴	Contact with objects and equipment	Falls	Exposure to harmful sub- stances or environments	Fires and explosions
Roofers.....	4	--	--	--	3	--	--
Roofers.....	4	--	--	--	3	--	--
Installation, maintenance, and repair occupations.....	7	--	--	3	--	--	--
Other installation, maintenance, and repair occupations.....	3	--	--	3	--	--	--
Industrial machinery installation, repair, and maintenance workers.....	3	--	--	3	--	--	--
Production occupations.....	11	5	--	3	--	--	--
Supervisors, production workers.....	3	--	--	--	--	--	--
First-line supervisors/managers of production and operating workers.....	3	--	--	--	--	--	--
First-line supervisors/managers of production and operating workers.....	3	--	--	--	--	--	--
Metal workers and plastic workers.....	3	--	--	--	--	--	--
Transportation and material moving occupations.....	23	9	5	7	--	--	--
Motor vehicle operators.....	14	5	4	4	--	--	--
Driver/sales workers and truck drivers.....	12	5	--	4	--	--	--
Truck drivers, heavy and tractor-trailer.....	9	4	--	4	--	--	--
Material moving workers.....	6	--	--	3	--	--	--
Laborers and material movers, hand.....	4	--	--	3	--	--	--
Laborers and freight, stock, and material movers, hand.....	4	--	--	3	--	--	--

¹ Based on the 2000 Standard Occupational Classification System.

² Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

³ Includes highway, nonhighway, air, water, rail fatalities, and fatalities resulting from being struck by a vehicle.

⁴ Includes violence by persons, self-inflicted injury, and attacks by animals.

NOTE: Totals for major categories may include subcategories not shown separately.

Dashes indicate no data reported or data that do not meet publication criteria. Data for 2004 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State and Federal agencies, Census of Fatal Occupational Injuries